



Math 309 (C1) – Spring-Summer 2017
Reading Assignments and Approximate Lecture Schedule

Mon	Tue	Wed	Thur	Fri
May 8	May 9	May 10	May 11	May 12
Complex Numbers		Modulus and Conjugate		Polar Form of a Complex Number Complex Exponential
May 15	May 16	May 17	May 18	May 19
Powers and Roots Planar Sets		Riemann Sphere Point at Infinity		Functions of a Complex Variable Mappings
May 22	May 23	May 24	May 25	May 26
Victoria Day No Class		Limits and Continuity		Derivatives Analyticity
May 29	May 30	May 31	June 1	June 2
Cauchy-Riemann Equations		Harmonic Functions Laplace's Equation in Polar Coordinates		Elementary Functions Polynomial and Rational Functions
June 5	June 6	June 7	June 8	June 9
Exponential Trigonometric and Hyperbolic Functions		Logarithmic Functions Complex Powers Inverse Trig Functions		Midterm Examination I
June 12	June 13	June 14	June 15	June 16
Contour Integration Contours Contour Integrals		Contour Integrals		Antiderivatives Independence of Path Cauchy-Goursat Theorem
June 19	June 20	June 21	June 22	June 23
Simply and Multiply Connected Domains		Cauchy Integral Formul and its Consequences		Cauchy Integral Formula Continued

Mon	Tue	Wed	Thur	Fri
June 26	June 27	June 28	June 29	June 30
Bounds for Analytic Functions		Applications to Harmonic Functions		Sequences and Series Taylor Series
July 3	July 4	July 5	July 6	July 7
Canada Day No Class		Power Series Laurent Series		Laurent Series Zeros and Isolated Singularities
July 10	July 11	July 12	July 13	July 14
Isolated Singular Points Residues		Residues at Poles The Residue Theorem Trigonometric Integrals		Midterm Examination II
July 17	July 18	July 19	July 20	July 21
Evaluation of Improper Integrals		Improper Integrals Jordan's Lemma		Indented Contours Multiple-Valued Functions Along a Branch Cut
July 24	July 25	July 26	July 27	July 28
The Argument Principle Rouché's Theorem		Conformal Maps Invariance of Laplace's Equation		Möbius or Fractional or Bilinear Transformations
July 31	August 1	August 2	August 3	August 4
Inverse Laplace Transforms		Complex Fourier Series		Complex and Real Fourier Series Last Day of Classes

Final Examination: 9:00 - 11:00 am, Tuesday August 15, 2017. Location to be announced